



The National Research Center on the Gifted and Talented

Newsletter

Fall 1992

The University of Connecticut • The University of Georgia • The University of Virginia • Yale University

NRC/GT Destination: So Near and So Far

by E. Jean Gubbins
*The University of Connecticut
Storrs, CT*

The National Research Center on the Gifted and Talented is now in its third year of operation. It is hard to believe that we are on the "crest" of the five-year research grant to conduct theory-driven studies with practical applications. In the spring of 1991, Joe Renzulli, Director of the NRC/GT, wrote an article for *Gifted Child Quarterly* entitled "The National Research Center on the Gifted and Talented: The Dream, the Design, and the Destination." I can still recall the day he was working on the article. He called out over the transom in our old office asking for a 'd' word to round out the title. Destination was it! Well, we are beginning to realize our destination. In June of 1990, we initiated seven large scale research studies. Since our national needs assessment, we have designed twelve more. A consortium of four universities and a network of thousands of teachers, administrators, parents, and students are making it possible to carry-out nineteen research studies.

We are now in the process of finalizing the technical reports for several year long studies at The University of Connecticut. The initial results were highlighted in the March 1992 *NRC/GT*

Newsletter. We will let you know when the technical reports for the following studies will be available to the public:

National Needs Assessment Study
*Joseph S. Renzulli
Brian D. Reid
E. Jean Gubbins*

Curriculum Compacting Study
Sally M. Reis

Classroom Practices Survey
Francis X. Archambault

Classroom Practices Observation Study
Karen L. Westberg

All the NRC/GT researchers are involved in implementing new studies for 1992-93 which are based on the results of the national needs assessment. The research will focus on the high school experiences of bright students in urban environments, successful classroom practices with an emphasis on teaching thinking skills, program performance of students identified using alternative criteria, staff development, preservice teacher preparation, and social and emotional adjustment of gifted students. The timeline for each study varies from one year to three years. As the research evidence accumulates, we will share it with you. Abstracts of the new studies and the continuation studies are highlighted in this newsletter.

While the research studies are being conducted by The University of Connecticut, University of Georgia, University of Virginia, and Yale University, we have been working with several Content Area Consultant Bank

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members on our Research-Based Decision Making Series. Five monographs have been published and others are being reviewed. The following research summary points from the series may be of interest to you:

Gifted and talented students should be given experiences involving a variety of appropriate acceleration-based options.

Grouping Practices
Karen B. Rogers

Bright, average, and slow youngsters profit from grouping programs that adjust the curriculum to the aptitude levels of the groups. Schools should try to use ability grouping in this way.

Ability Grouping
James A. Kulik

If a school is committed to cooperative learning, student achievement disparities within the group should not be too severe.

Cooperative Learning
Ann Robinson

Some indirect evidence exists that labeling a child gifted would have a positive impact on self-esteem, but direct evidence is lacking.

Self-Concept
Robert D. Hoge &
Joseph S. Renzulli

Identification of artistically gifted and talented students should be based upon attention to student potential and work in progress, as well as final performance and products.

Identification in the Arts
Gilbert Clark &
Enid Zimmerman

Thousands of copies of these monographs have been disseminated to people. We are also very fortunate that several newsletters have reprinted the executive summaries for their own subscribers, which furthers our ability to "get the word out." One newsletter reprinted the executive summary on *Grouping Practices* by Karen Rogers and sent it to 15,000 people!

Moving toward our destination would definitely not be possible without our Collaborative School Districts (CSD) and the cooperation of the state and territorial departments of education consultants. Our CSD network has reached 305 districts throughout the country.

Working with Collaborative School Districts and state and territorial departments of education consultants provides a "reality check" for all of our research. Research can be complex and mystifying at times; it can also be demystified. We are asking the questions that practitioners wanted answered and moving ahead with our research agenda. Look for the highlights of research studies conducted in 1991-92 in our next newsletter.

New districts involved with the NRC/GT include:

Springdale Public School District #50
Springdale, AR

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Porterville, CA

Norwich Public Schools
Norwich, CT

Gwinnet County Public Schools
Lawrenceville, GA

Cleveland School District
Cleveland, MS

Long Beach School District
Long Beach, MS

Ronan/Pablo School District #30
Ronan, MT

Nashua School District #42
Nashua, NH

Perth Amboy Public Schools
Perth Amboy, NJ

Roswell Independent School District
Roswell, NM

City School District
Syracuse, NY

Lawton Independent School District
Lawton, OK

Portland Public Schools
Portland, OR

Altoona Area School District
Altoona, PA

Lower Merion School District
Ardmore, PA

State College Area School District
State College, PA

Little Wound School District
Kyle, SD

Conroe Independent School District
Conroe, TX

Edgewood Independent School District
San Antonio, TX

Tyler County Schools
Middlebourne, WV

South Bend Community School Corp.
South Bend, IN

Brewster Central Schools
Brewster, NY

Jefferson Parish Public School System
Harvey, LA

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To order from the NRC/GT Publication List, please fill out the information below and mail with your check payable to The University of Connecticut:

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by Dr. Robert D. Hoge and Dr. Joseph S. Renzulli
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Year THREE Research Abstracts

THE NATIONAL RESEARCH CENTER ON THE GIFTED AND TALENTED

ABSTRACTS OF YEAR 3 RESEARCH STUDIES

An Ethnographic Description of the High School Experiences of High Ability Students in an Urban Environment

Principal Investigators: **Dr. Sally M. Reis**
Thomas P. Hébert

Implementation: 1992-1994

Gifted students from culturally diverse populations exist in large economically deprived urban environments, and they are now being included in the statistical reports of high school dropouts. To deal with this crisis situation, educators must better address their needs through appropriate educational programs. For this reason, students from economically disadvantaged backgrounds were identified as a priority in the Jacob Javits Act, and this research is the first ethnographic study proposed by The National Research Center on the Gifted and Talented (NRC/GT) to address this problem. The study will examine the cultural reality of high ability teenagers in an urban environment through participant observation and ethnographic interviews. The objective of the research will be an attempt to identify the following: cognitive and affective educational needs of gifted youth who are achieving and underachieving in an urban high school setting, the strategies for success employed by these students, and the educational and psychological support systems available to this population.

A Longitudinal Study of Successful Practices in Regular Classrooms

Principal Investigators: **Dr. Francis X. Archambault, Jr.**
Dr. Karen L. Westberg

Implementation: 1992-1995

The University of Connecticut site of the NRC/GT intends to conduct research during the next three years which will examine the impact of a comprehensive educational program for high ability students in the regular classroom. In an experimental study, an educational program will be implemented in two treatment schools and a control group school in a school district with a high concentration of economically disadvantaged students. In addition to collecting quantitative data to assess the program's impact on teachers and students, qualitative research techniques will be employed to provide rich descriptions of the various aspects of the educational plan. During Year 1, the treatment interventions and assessment instruments will be developed and field tested, and staff development experiences will be provided to teachers in the treatment schools. The educational program, to be implemented during Years 2 and 3, will include instruction in basic and complex thinking skills and instruction and opportunities for application of thinking skills to both advanced content and advanced project work. The need for these components of the educational intervention, as well as the nature of each component, emerged from the studies undertaken during the first two years of the NRC/GT at The University of Connecticut as well as from a review of recommended practices for high ability students.

Gifted Program Performance of Students Identified Through the Research-Based Assessment Plan

Principal Investigators: **Dr. Mary M. Frasier**
Dr. Scott Hunsaker

Implementation: 1992-1993

This study will provide information that will help educators make the critical connection between assessment data and programming/curricular decisions. By investigating the gifted program performance of pilot study students identified using the Research-Based Assessment Plan (and comparing their performance with that of traditionally identified students), the study will help validate a theory based on the differential manifestations of gifted behaviors in different students and translate that theory into best-practice recommendations regarding program planning for these students. Both qualitative and quantitative data will be analyzed in order to evaluate achievement and attitudinal variables.

A National Field Test of the Staff Development Model and the Research-Based Assessment Plan

Principal Investigators: **Dr. Mary M. Frasier**
Dr. Scott Hunsaker

Implementation: 1992-1993

This field test will investigate the transferability of the Staff Development Model and the Research-Based Assessment Plan developed in 1991-1992. Selected sites that reflect various types of communities (i.e., suburban, urban, rural) will implement the Staff Development Model and the Research-Based Assessment Plan with technical assistance but without direct supervision from personnel at The University of Georgia. These sites will reflect differences in designs such as: administrative organization, school sizes and type, differences in minority/majority population ratios, gifted program delivery models, school location, and personnel resources. However, sites will be selected that have similar philosophies and program goals. Data collected will be used to determine: (a) the degree to which the Staff Development Model can be transferred, (b) the degree to which the Research-Based Assessment Plan can be transferred, and (c) the extent to which the Staff Development Model and the Research-Based Assessment Plan change the attitudes of students, teachers, and administrators toward the participation of target population students in gifted programs.

Investigations Into Instruments and Designs Used in the Identification of Gifted Students and the Evaluation of Gifted Programs

Principal Investigator: **Dr. Carolyn M. Callahan**

Implementation: 1990-1993

The University of Virginia has established a National Repository for Instruments and Strategies used in the Identification of Gifted Students and the Evaluation of Gifted Programs. Existing instruments, systems and designs used in identification and evaluation were collected through a nationwide survey. In addition, a paradigm was created for evaluating the identification instruments in light of the wide variety of definitions and conceptions of giftedness. Non-traditional and product/performance instruments currently in use in evaluation of gifted programs will also be reviewed for their usefulness. Potentially useful locally-developed instruments will be examined through formal validation processes.

Pre-Service Teacher Preparation in Meeting the Needs of the Gifted

Principal Investigators: **Dr. Carol A. Tomlinson**
Dr. Carolyn M. Callahan

Implementation: 1992-1995

There is evidence of a need to improve teacher attitudes and practices regarding instruction of gifted learners and evidence that positive changes in teacher attitude and practice can be accomplished through interventions with pre-service teachers. This study will examine the impact on pre-service teachers' attitudes and practices of direct instruction regarding gifted learners, their needs, and strategies which exist for meeting those needs. In addition, one group of pre-service teachers in the study will also receive coaching in instructional differentiation by trained educators of the gifted during their student-teaching placements to determine the relative effectiveness of direct instruction alone in comparison with direct instruction coupled with coaching in the classroom. Further, cooperating teachers who work with pre-service teachers will be studied to see if the interventions have an impact on their attitudes and/or instruction. Finally, a sub-sample of the pre-service teachers studied will be followed into their first year of teaching to determine longevity of attitudinal and instructional impact of the interventions.

Social and Emotional Adjustment of the Gifted

Principal Investigators: **Dr. Claudia J. Sowa**
Dr. Kathleen M. May
Dr. Carolyn M. Callahan
Dr. Marcia A. B. Delcourt

Implementation: 1992-1995

Case studies of interpersonal, family and school factors and the interactions between and among these factors will be the basis for identifying those elements which contribute to healthy development or maladjustment within the gifted population. Data from interviews with teachers, parents and family members and, the children themselves will be used to build a model of resiliency in gifted children, to explicate dynamics of the gifted children and their families, and to identify hypotheses explaining differential adaptations made by gifted students to the environments in which they live.

(continued on page 6)

Year three ABSTRACTS

(continued from page 5)

Continuation of Motivation and Underachievement in Urban and Suburban Gifted Preadolescents

Principal Investigator: Dr. Pamela R. Clinkenbeard
Implementation: 1991-1995

We will investigate factors that seem to create or inhibit a "gifted" level of performance, both in those who have been identified as gifted and those who have not, at the middle school level. We will focus on two main factors in the gap between potential and performance: motivation and disadvantage. This project will describe in qualitative fashion the motivation patterns found in both suburban and economically disadvantaged urban classrooms of gifted preadolescents. Expected knowledge includes some answers to these questions: Do suburban classrooms for gifted preadolescents reveal different motivational patterns from those in economically disadvantaged urban classrooms? Are motivational patterns of students identified as gifted different in kind and/or degree from motivational patterns of other students? Does the experience of being labeled "gifted" cause a shift in motivation-related behavior?

Continuation of A Theory-Based Approach to Identification, Teaching, and Evaluation of the Gifted

Principal Investigator: Dr. Robert J. Sternberg
Implementation: 1990-1995

The purpose of this five-year project is to study three major aspects of gifted education — identification, teaching, and student evaluation — within one integrated investigation. A common problem in the education of gifted students is inconsistency between the way these students are identified and the instruction and assessment they receive. The focus of this project is to identify, instruct, and evaluate students based on Sternberg's Triarchic theory of intelligence. First, we are in the process of identifying students who are gifted in one of the three areas of the triarchic theory: analytic ability, creative-synthetic ability, or practical-contextual ability, as well as students who are balanced among these three kinds of giftedness. Second, we are developing different versions of an introductory course in psychological science that will be taught so as to emphasize analytic, creative, or practical skills. Third, evaluation will cover analytic, creative, and practical achievements. Equal numbers of students with each kind of giftedness will receive each kind of instruction, and all students will be evaluated on analytic, creative, and practical achievements. In summary, the project systematically manipulates identification, instruction, and evaluation of gifted students (as well as control students) in order to determine what would be gained by broadening our identification procedures, teaching in ways that are or are not tailored to gifted students' particular patterns of abilities, and assessing the students' performance in ways that either do or do not address their particular strengths.

Research in PROGRESS

Attitudes Toward Science Among High School Students

Julianne M. Smist
Springfield College
Springfield, MA

Research conducted over the past decades has painted a disturbing picture of the state of science knowledge and ability of American students. Internationally, American students are scoring at or near the bottom on science knowledge and proficiency tests; nationally, students' science knowledge has declined since 1969. Also disheartening is the fact that fewer and fewer students are choosing science as a profession and more students are avoiding college science courses.

The purpose of this proposed research is to specify, estimate and test a statistical model that explains the relationship of science self-efficacy, science aptitude, science attributions and attitude toward science, and to determine if the model is invariant with respect to students' ability, gender and ethnicity. The model was built on the theoretical frameworks of social cognitive theory, attribution theory and attitude toward science.

A national sample of 500 eleventh and twelfth grade students will complete the *Science Self-efficacy Questionnaire*, a science attributions instrument, and Fraser's *Test of Science-Related Attitudes* at the beginning of the school year. Data will be analyzed by means of confirmatory factor analysis to examine the constructs of attitude toward science and science self-efficacy.

The findings of this study will provide empirical foundations potentially useful in the development and evaluation of programs aimed at the recruitment and retention of women and minorities, two groups that have long been underrepresented in sciences.

Case Studies of Gifted Students With Emotional or Behavioral Problems

Terry W. Neu

The University of Connecticut
Storrs, CT

The gifted student has long been considered immune to emotional or behavioral disorders. Several studies have recently questioned the lack of identification of such disorders among the gifted population. This study will investigate factors contributing to the perceived emotional or behavioral disorders (EBD) of selected gifted students. It will also examine how these students were identified as gifted and EBD. Students who have simultaneously demonstrated gifted behaviors and those characteristics associated with EBD (as defined by the National Definition Task Force, 1990) will be sought for participation in this study. Qualitative methodology, including open-ended interviews, document review, and classroom observations, will guide this descriptive case study research. This study will describe the observable characteristics of students who are both gifted and EBD. The problems relating to the identification of these students as gifted and EBD will also be examined.

A Content Analysis of the Appropriateness of Kindergarten Curriculum and Instructional Materials for High Ability Students

Florence Caillard

The University of Connecticut
Storrs, CT

Research in early childhood education has continually demonstrated the importance of providing training and guidance to children during their early years.

Kindergarten programs are now an important part of primary education. These programs have to adapt to a changing and diverse population (e.g., change in family or change in the workforce) and, therefore, new curriculum and new techniques for meeting the needs of students are often sought by teachers and parents. One approach to meeting these needs has been to develop curriculum according to the developmental needs of children within a specific age group. Research indicates that the developmental approach establishes a broader, more individualized, learning base than other instructional approaches. Researchers, however, currently report a wide range of variability with respect to the quality of these developmentally appropriate curriculum guides and materials. Developmentally appropriate curriculum has been defined as curriculum that is created to meet the developmental needs of the child, rather than basing curriculum decisions solely on the chronological age of the child. Little research has been found which addresses high ability young children and how the curriculum is modified to meet their needs. Kindergarten curriculum has been a topic of concern for the past few years, however, little research has been conducted to assess: 1) the quality of the kindergarten curriculum design and materials used in meeting the needs of high ability students in the regular classroom; and 2) the consistency between guidelines from various organizations to design curriculum and the actual materials used to implement the curriculum for high ability students.

The objective of this study is to use a content analysis to investigate the appropriateness of kindergarten curriculum guidelines and instructional materials used in kindergarten to meet the developmental needs of high ability kindergarten students.

The Learning Outcomes Study

Marcy Delcourt

The University of Virginia
Charlottesville, VA

The following is a correction to an article that appeared in the March 1992 NRC/GT Newsletter.

In the section Initial Results: Year one, Achievement, the text stated that "initial findings indicate that students in Special Schools showed the most significant gains in Mathematics Problem-Solving, Social Studies, and Science when compared to students in all other types of programs." The text should read "initial findings indicate that students in special schools showed significant gains in Science when compared to students in all other types of programs. For Mathematics Problem-Solving, the increase in scores from fall to spring was significantly higher for students from special schools than for students in separate classes and comparison schools. Regarding Social Studies, students in special schools and in pull-out programs showed greater increases in scores than students in separate classes and in the comparison group."

These results reveal complex relationships between achievement and program types. As the article indicates, these findings may be due to fluctuations in curriculum across the different programs and it is important to track the progress of these students over another year to examine whether or not these trends continue. Please refer to the full text from the March 1992 issue of the newsletter for a description of the study and additional results from the project.

COMMENTARY

101 Ways to Read a Book

A Review of *Terman's Kids* by Joel Shurkin

Jonathan A. Plucker

West Point Elementary School
West Point, NY

While the presentation of the book review has occasionally been accomplished in a creative manner (Feldhusen, 1973; Hohn, 1975), its purpose has remained the same: to help the potential reader decide whether to read and possibly purchase the book. But after the decision has been made to read the book, the review has lost its usefulness. Indeed, suggestions for how to go about reading the book are few and far between.

Granted, this situation is not terribly disturbing when the book is *Green Eggs and Ham*. Problems arise, however, when an attempt is made to read a book with numerous, detailed themes, such as Shurkin's *Terman's Kids*, which deals with the longitudinal study through which Lewis Terman, the late Stanford psychologist, followed the lives of more than 1,500 talented children. The study began in 1922, and the lives of the surviving "Termites," as his subjects refer to themselves, are still being tracked by Terman's successors. Terman's legacy, through the publication of revisionist biographies (e.g., Seagoe, 1976), has grown to partially overshadow the studies, which constitute more than 7 volumes and numerous articles (as well as many unpublished studies and findings). How can a review assist the reader in analyzing one of the most complex individuals and series of studies in the history of the investigation of human behavior?

A possible method for increasing the utility of the review could be the inclusion of a set of questions to serve as guides to readers as they make their way through the book. For example, guiding questions for *Terman's Kids* include:

- In what ways did Terman's "conservative" definition of giftedness (above 140 IQ) affect the study? Would the results have been different if he had used a more flexible definition?
- How is Terman's personality manifested in the study?
- Why have some of the studies' findings been criticized and discarded, while others have been accepted almost unconditionally?
- What principles and concepts in education and psychology are based upon Terman's work? Do the studies give sufficient evidence to

justify the formation of these principles and concepts?

And, most importantly:

- Considering the errors, biases, and controversy surrounding Terman and his longitudinal study, which of his contributions helped him to attain such an important influence in psychology and education?

Without the help of these questions, the reader could resort to using the comments on the dust jacket or cover of the book to help create a frame of reference through which to read the book (*Reading* a book by its cover as opposed to *judging* a book by its cover). A good cover will describe the targeted audience, as well as some major questions that can be answered after reading the book. In fact, after reading *Terman's Kids*, I found that my responses to the book, both positive and negative, were represented by the information on the cover.

Shurkin has attempted to write the definitive book on Terman and his work, and this is both the book's greatest strength and most glaring weakness. In a positive light, Shurkin devoured an imposing task: the analysis of the voluminous data collected by Terman and his staff, some of which (e.g., studies of homosexuality) are rather obscure. Many of Terman's pre-1922 studies are analyzed, as are his research projects which ran concurrent to the longitudinal study.

With respect to the audience to which the book is targeted, however, Shurkin is much less successful. The back cover states that Terman's "insights into the nature-versus-nurture conundrum will fascinate parents, scholars, and anyone who works professionally with children" (Shurkin, 1992). But by aiming the work at several targets (i.e., audiences, with each looking to gain something different from the Terman investigations), Shurkin fails to hit any "bull's-eyes." The mini-biographies of Termites clustered between every few chapters will appeal to *every* reader, especially those narratives in which the true identity of the Termites is revealed. These intermittent sections are very readable, which contrasts them with many of the actual chapters of the book. Because of the mass of data which is reported, these sections can become rather dry and lacking in implications, which will provide parents with little motivation to read further. In addition, scholars will be frustrated by the inconsistent analyses of the studies. For example, Shurkin criticizes Terman repeatedly for not comparing his research to other longitudinal studies, yet he also questions, on methodological grounds, the few instances in which Terman *did* make comparisons. Both criticisms hold some validity, but these sections are not concisely written, creating an occasional appearance of

hypocrisy. Throughout the statistical analyses, Shurkin frequently left me with the feeling that he stopped too soon, without exploring the implications thoroughly enough. The book is written too technically to be a meaningful survey of Terman's life and work; it lacks the depth needed by scholars and the practical implications desired by parents and educators.

Shurkin correctly points out many of Terman's weaknesses, many of which have been glossed over in other biographical works (Seago, 1976); for example, he was not a model of moral propriety, and he frequently involved himself in the lives of his subjects, writing letters of recommendation, giving advice to parents, and counseling the "Termites." But in Shurkin's desire to avoid the appearance of favoritism (he is a science writer at Stanford), he may have unnecessarily prevented himself from investigating the positive aspects of Terman and his personality. After all, Terman was arguably one of the most influential psychologists during the first half of this century, with a presence that is still felt in numerous disciplines, especially education and psychology.

While I feel that this book has some glaring weaknesses, I still give it a guarded recommendation for both scholars and educators as a reference for further investigation into

criticism of the role of Terman's influence in the lives of his subjects is pertinent from a research point of view. However, from a more practical perspective it caused me to wonder whether the absence of this influence would have had an appreciably negative effect on the level of the Termites' success; if so, this suggests that the roles of both personal and career counseling have a positive effect on the lives of high potential youth.

Definitive books on a subject should provide a comprehensive background, while piquing the reader's interest and creating a desire to further investigate the details and complexities of the topic. *Terman's Kids*, however, tends to create more questions about the basic aspects of the topic than it is able to answer. The book is still useful as a guide, however, because Shurkin has done the literature a service by calling attention to the more obscure aspects of the Terman studies, one of the great research treasures of psychology and education. We can only wish that he had chosen one target, rather than three.

References

- Feldhusen, J. F. (1973). Dialogue for Andrew. *Journal of Creative Behavior*, 7, 279-281.
 Hohn, R. L. (1975). Memo no. 6194. *Journal of Creative Behavior*, 9, 196-199.
 Seago, M. V. (1976). *Terman and the gifted*. Los Altos, CA: Kaufmann.
 Shurkin, J. N. (1992). *Terman's kids: The groundbreaking study of how the*



How do you find and nurture the future O'Keeffe, Picasso, Rembrandt, Moses, Van Gogh, Cassatt... Renoir in your classroom?

Gifts and talents come in a variety of forms. Now, for the first time, a comprehensive review of successful procedures for identifying artistically talented students is available in a highly readable format. The authors of this easy-to-understand review of literature take the mystery out of identifying artistically gifted and talented students.

- *What role does culture play in defining artistically gifted and talented students?*

- *What is the relationship between talent in the visual arts and high cognitive ability?*

- *Why is it important to identify students with high potential in the visual arts?*

- *What does research say about identification of artistically gifted and talented students?*

- *How can we identify students who are in need of special services in the visual arts?*

Issues and Practices Related to Identification of Gifted and Talented Students in the Visual Arts

by Dr. Gilbert A. Clark & Dr. Enid Zimmerman

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COMMENTARY

UNDERACHIEVEMENT

Mary Lukasic, Vicki Gorski, Melinda Lea

University of Houston-Clear Lake
Houston, TX

Rita Culross

Louisiana State University
Baton Rouge, LA

This review summarizes the research over the past 50 years on underachievement among gifted and talented students. The review was limited to published journal articles with a critical eye to describing, analyzing, and evaluating the literature. The review sought to answer five primary questions:

- (1) What is underachievement?
- (2) How do we identify underachievers?
- (3) Who are the underachievers and what are they like?
- (4) What causes underachievement?
- (5) What can we do to turn underachievers into achievers?

It was found that although there is general consensus that underachievement is a discrepancy between potential and performance, operational definitions vary widely and make cross comparisons of studies difficult. Definitions of low achievement range from failing a grade to performing one and one-half years below grade level. Identification is a Catch-22. In order to be recognized one must already be performing at some level. No real data exist on the numbers of children, particularly among the low SES, who are never identified. Early identification promises the best hope for reversing underachievement, yet it is the most problematic to do. Underachievement in the gifted is attributable to personality characteristics of the child, dysfunction in the family, or failure by the school system. Most researchers blame one factor and ignore the interaction of several variables. Gifted underachievers are branded as nonconforming, socially isolated, and lacking in motivation and self-esteem. Few studies, however, distinguish between being different and being maladjusted or between achievement in socially-approved areas and achievement in other areas. Treatment approaches have been confined largely to counseling and changes in education. Both approaches appear to make gifted underachievers feel better about themselves, but little improvement in actual performance is noted.

In spite of great interest in the topic, the existing literature on underachievement among the gifted is drawn largely from studies of an anecdotal or a quasi-

AMONG
GIFTED
AND
TALENTED
STUDENTS:
WHAT
WE
REALLY
KNOW

experimental nature. Research findings are sometimes based on studies which utilized small sample sizes, dubious measurement techniques, and inadequate controls. A basic need in the field exists for carefully controlled, experimental studies. Multivariate design and meta-analyses are also needed to sort out the effects on achievement of a multitude of internal and external factors.

Specific topics that seem promising for research include investigating the achievement of underachievers in nonacademic settings, training teachers and parents to recognize underachievement, developing techniques for early identification, identifying sex differences in the onset and pattern of underachievement, specifying peer, teacher, and classroom factors that contribute to underachievement,

and expanding the study of approaches to treat underachievement.

Recommendations for practices include:

- (1) screening for underachievement among gifted students as early as kindergarten,
- (2) training of parents and teachers to recognize underachievement, using multiple identification criteria,
- (3) seeking input from multiple sources in developing educational or counseling approaches,
- (4) providing for psychological needs of gifted students,
- (5) counseling involving family-centered approaches to intervention,
- (6) intervening differently with males than females, and
- (7) changing the educational environment through individualization, emphasis on study skills, promotion of creativity, accent on coping skills, and the addition of support services to gifted and talented programs.

Copies of the complete paper may be obtained by sending a stamped, self addressed business envelope to:

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A Brief Note... on the Format of the NRC/GT Products

We have attempted to prepare the NRC/GT products in an attractive and functional format to increase the number of people who may have access to our work. For this reason we have prominently displayed the names and logos of the participating universities on the cover of each product, and we have used a high quality paper stock to give the products a "sturdy appearance" and an element of source credibility. For shorter products that we hope will be reproduced in significant numbers, we have used a "slip-on" binding to facilitate easy reproduction. All Center products are, by design, *not copyrighted*; and we

encourage all users of Center products to reproduce them and distribute them as widely as possible.

At the same time, in order to minimize costs and conserve natural resources, most of our lengthier products are printed on both sides of the page. Most of the lengthier reports include abstracts and executive summaries, detailed tables of content, and extensive references.

If you should have any suggestions regarding the format of Center products, we would be most pleased to hear from you. We hope that our careful attention to editing, the use of subsections, and lively writing styles will help achieve our goal of maximizing the impact of Center products.



Announcing the Second Biennial Henry B. and Jocelyn Wallace National Research Symposium on Talent Development

May 20-22, 1993

The Connie Belin National Center for Gifted Education
The University of Iowa Iowa City, Iowa

Nicholas Colangelo, Director

Susan Assouline, Associate Director

The Connie Belin National Center for Gifted Education will host the second biennial Wallace National Research Symposium on Talent Development.

This symposium provides an opportunity for researchers and theorists from across the nation to present their current work on talent development, creativity, and gifted education. The symposium will be held at The University of Iowa in Iowa City, Iowa, on May 20-22, 1993.

Invited papers will be presented by:

Robert Albert
Nicholas Colangelo
Howard Gardner
Leon Miller
Richard Snow

Theresa Amabile
Dewey Cornell
Nancy Ewald Jackson
Joseph Renzulli
Julian C. Stanley

Camilla P. Benbow
Mihaly Csikszentmihalyi
Barbara Kerr
Mark Runco
Joyce VanTassel-Baska

James Borland
Carolyn Cutrona
David Lohman
Dean Keith Simonton
Herbert J. Walberg

**For further information about symposium registration,
call 1-800-336-6463 or FAX 319-335-5151.**

The Henry B. and Jocelyn Wallace second biennial National Research Symposium on Talent Development has been made possible through an endowment from the Wallace Genetic Foundation.

There is an alarming trend in many places to eliminate programs that benefit gifted students, usually in the interest of returning all students to heterogeneous learning environments. Educators have been bombarded with information from many sources that make it appear that there is no benefit to ability grouping for any students. The work of Kulik and Kulik, Allan, Feldhusen, and others clearly documents the benefits of keeping gifted students together for at least part of the school day, in their areas of academic strength. Although there is evidence that average and below average students have more to gain from heterogeneous grouping, we must not make the mistake of thinking we have to choose between ability grouping and providing appropriate learning opportunities for gifted students. The practice of cluster grouping represents a mindful way to make sure gifted students continue to receive a quality education at the same time as schools work to improve learning opportunities for all our young people.

What does it mean to place gifted students in cluster groups?

A group of four to six identified students, usually those in the top 5% of the grade level population in ability, are *clustered* in the classroom of one teacher who has special training in how to teach gifted students. The other students in that class are of mixed ability. If there are more than six gifted students, two or more clusters may be formed.

Isn't cluster grouping the same as tracking?

No, they are different. In a tracking system, all students are grouped by ability for much of the school day, and students tend to remain in the same track throughout their school experience. Research by Kulik and Kulik documents that gifted students benefit from learning together and need to be placed with students of similar ability in their areas of strength. Cluster grouping of gifted students allows them to learn together while avoiding permanent grouping arrangements for children of other ability levels. As a matter of fact, schools can maintain separate sections for the most able students, while grouping all other students heterogeneously.

Why should gifted students be placed in a cluster group instead of being assigned evenly to all classes?

When teachers try to meet the diverse learning needs of all students, it becomes extremely difficult to provide

COMMENTARY

Cluster Grouping Fact Sheet: How to Provide Full-Time Services for Gifted Students on Existing Budgets

Susan Winebrenner

President, Education Consulting Service, Lombard, IL

Barbara Devlin

Consultant, Villa Park District #45, DuPage County, IL

adequately for everyone. Often, the highest ability students are expected to "make it on their own." When a teacher has *several* gifted students, taking the time to meet their special learning needs seems more realistic. Furthermore, the social and emotional problems that occur when gifted students struggle to understand why they seem so different from their age peers may be avoided. Gifted students will actually remain more humble when they have

consistent academic competition.

What are the special learning needs of gifted students?

Since these students have previously mastered many of the concepts they are expected to "learn" in a given class, a huge part of their school time may be wasted. They need exactly what all other students need: consistent opportunity to learn new material and to develop the behaviors that allow them to cope with the challenge and struggle of new learning.

Can't these learning needs be met in heterogeneous classes that use cooperative learning?

When gifted students are always placed in mixed-ability groups for cooperative learning, they frequently become bosses and/or tutors. Other students in these groups rely on the gifted to do most of the thinking, and may actually learn less than when the gifted students are not in their groups. When gifted students work in their own cooperative learning groups from time to time on appropriately challenging tasks, they are more likely to enjoy cooperative learning, while the other students learn to rely less on the gifted students and become more active learners. The best guidelines are that when the task is of the drill and practice type, gifted students should be learning how to cooperate in their own groups in which the task is difficult enough to require cooperation. When the task is open-ended and requires divergent thinking, it is more appropriate to include the gifted students in heterogeneous cooperative learning groups.

Isn't it elitist to provide for the needs of gifted students if other students can't get their learning needs met as well?

It is inequitable to *prevent* gifted students from receiving an appropriately challenging education until other students get their learning needs met. The practice of cluster grouping for gifted students allows educators to come much closer to providing better educational services for all students, instead of sacrificing the needs of gifted students to the false perception that our educational

system must choose which students to serve and which to ignore. Furthermore, in the non-cluster classrooms, teachers report they have the time to pay more attention to the special learning needs of those for whom learning may be more difficult. For that reason, some schools choose not to place struggling students in the same class that has the cluster group of gifted students.

If gifted students are not placed in some classes, won't those classes lack positive role models for academic and social leadership?

Teachers overwhelmingly report that new leadership "rises to the top" in the non-cluster classes. There are many students other than the gifted who welcome opportunities to assume available leadership roles.

Won't the presence of a cluster group of gifted students inhibit the performance of the other students in that class, having a negative effect on their achievement?

This is not a problem when the cluster group is kept to a manageable size of no more than six students. As a matter of fact, cluster teachers report that there is general improvement in achievement for the entire class. The effects of the cluster grouping practice may be evened out over several years by rotating the cluster teacher assignment among specially trained teachers and also by rotating the other students so they have a chance to be in the same class with the cluster group.

What specific skills are needed by cluster teachers?

Since gifted students are as far removed from the "norm" as the learning disabled, it is equally necessary for teachers of all exceptional children to have special training. Teachers of gifted students must know how to:

- recognize and nurture "gifted" behaviors
- understand the social-emotional needs of gifted youngsters
- allow students to demonstrate previous mastery of concepts
- provide opportunities for faster pacing of new material
- incorporate students' passionate interests into their independent studies
- facilitate sophisticated research investigations
- provide flexible grouping opportunities for the entire class

Should the cluster grouping model replace pull-out programs for gifted students?

No. Cluster grouping is one important component of a comprehensive program for gifted students. The services of a resource teacher may be used to provide assistance to all classroom teachers in their attempts to differentiate the curriculum for gifted students. If the resource teacher offers a "pull-out" class, there is usually less resistance from trained cluster teachers about students leaving the regular class for a resource program. Cluster grouping provides an effective complement to any gifted program.

What are the advantages of using the cluster grouping concept?

For the gifted students, the advantages are that they feel more accepted when there are other students just like them in the class. They are more likely to choose more challenging tasks when they are able to work with other gifted students. For the teachers, the advantages are that they no longer have to deal with the strain of trying to meet the needs of just one precocious student, while another teacher is experiencing similar strain with another precocious student in a different classroom. When teachers know several gifted students will benefit from differentiation efforts, it seems more realistic to make that differentiation available. For the school, the advantage is that it is finally possible to provide a full-time, cost-effective program for gifted students, because their exceptional learning needs are more likely to be met when they are grouped together with a specially trained teacher.

What are the disadvantages of using the cluster grouping concept?

In some communities, there may be pressure from parents to have their children placed in a cluster classroom, even if they are not in the actual cluster group. This situation may be handled by: providing training for all staff in compacting and differentiation so parents can expect those opportunities in all classes, rotating the cluster teacher assignment every two years among teachers who have had special training to demonstrate that many teachers are eligible to have the cluster group in their class, and even by cycling most students into the cluster teachers' classrooms on a rotating basis. Another potential problem is that the cluster grouping concept is effective only when teachers receive special training on how to differentiate the curriculum, and when their supervisor expects them to use those strategies consistently to maintain the integrity of the program.

Is cluster grouping feasible only in elementary schools?

No. Cluster grouping may be used at all grade levels and in all subject areas. Gifted students may be clustered in one section of any class with other students of mixed ability, especially when there are not enough students to form an advanced section of a course. Cluster grouping is also a welcome option in rural settings or wherever small numbers of gifted students make programming difficult.

Further information is available from: Phantom Press, 15 Lombard Circle, Lombard, IL 60148

References:

- Allan, S. (March, 1991). Ability grouping research reviews: What do they say about grouping and the gifted? *Educational Leadership*, 48(6), 60-65.
- Feldhusen, J. (March, 1989). Synthesis of research on gifted youth. *Educational Leadership*, 46(6), 6-11.
- Kulik, J.A. & Kulik, C-L.C. (1990). Ability grouping and gifted students. In N. Colangelo & G. Davis, (Eds.), *Handbook of gifted education*. Boston: Allyn/Bacon.

Just Off The PRESS

Creative Problem Solving: An Introduction

Donald J. Treffinger and Scott G. Isaksen
Sarasota, FL

This is the latest update of the long-standing and widely researched Creative Problem Solving (CPS) model, building on more than three decades of research, development, and field experience. This book provides a clear, concise overview of the three important components of CPS (Understanding the Problem, Generating Ideas, and Planning for Action), and the six specific CPS stages (Mess-Finding, Data-Finding, Problem-Finding, Idea-Finding, Solution-Finding, and Acceptance-Finding). It presents newly revised and updated definitions of creative and critical thinking, "Mess Mapping," a number of new CPS strategies, and updated information on applying CPS.

Copies may be obtained from:
Center for Creative Learning, Inc.
4152 Independence Court, Suite C-7
Sarasota, FL 34234-2147

Programs and Practices in Gifted Education: Projects Funded by the Jacob K. Javits Gifted and Talented Students Education Act of 1988

Sandra L. Berger
The ERIC Clearinghouse on Handicapped and Gifted Children
Reston, VA

Find out who is doing what, where. This directory of 46 projects provides information on what has been accomplished by projects serving the "difficult to identify" culturally and linguistically diverse and underachieving gifted and talented population. Comprehensive, detailed descriptions include program goals and target population characteristics. Two overviews make information easy to retrieve. This product is also available on diskette for Macintosh users who have Filemaker Pro software by Claris.

To order call:
703-264-9474
No.R636. 1992. 220 pp.
CEC Member Price \$12.50
Regular Price \$18.00

Understanding Those Who Create

Jane Piirto
University of Ashland
Ashland, OH

This book is a comprehensive synthesis of the research into creativity and the creative process. Part I explores creativity and giftedness. Part II discusses the measurement of creativity. Part III discusses creative people by domain. There are separate chapters on creative writers; visual artists; scientists, mathematicians and inventors; musicians and composers; and actors and dancers. Part IV discusses how teachers and parents can enhance creativity in children. James Alvino called it "a genuine magnum opus on creativity"; Rena Subotnik called it "an important contribution to the field"; Mary Meeker called it "fair, objective and positive." The book contains 360 pages and several hundred references. The author is Director of Gifted Education at Ashland University, former principal of the Hunter College Elementary School, and a published novelist and poet.

Price: \$20.00
Ohio Psychology Press, Dayton, OH
Ashland, Ohio

How Do Teachers Understand Research When They Read it?

J. S. Zeuli
Michigan State University
East Lansing, MI

Attention to teachers' beliefs has become an essential feature of studies designed to help teachers understand research. The beliefs on which researchers and teacher educators typically focus are teachers' beliefs about teaching and learning. Teachers' beliefs about educational research, however, may also strongly influence their understanding and use of research. This study provides a description and analysis of how teachers read research in light of their prior beliefs about what research is and how it should influence their teaching. The subjects of the study were two distinct groups of teachers with varying levels of prior involvement with educational research. One group included five former "teacher collaborators" who had worked with researchers on research projects for at least one year. The second group was comprised of eight teachers with considerably less experience with research. In light of teachers' prior beliefs about research, the author shows that teachers differed substantively in terms of their willingness and/or ability to read and understand research.

Copies may be obtained by calling 517-353-4994

RECENT RESEARCH

Attitudes of Day School Principals and Teachers Toward Gifted Education

Melvin A. Isaacs
Yeshiva University
New York, NY

This study investigated the reported attitudes toward educating the academically gifted among principals and teachers of both the General Studies and Judaic Studies departments employed in Board of Jewish Education-affiliated day schools in the Greater New York area. A modified version of the Wiener Attitude Scale was adapted in order to reflect the conditions of learning in the participating Jewish day schools. The questionnaire was completed by 357 teachers and 39 principals randomly selected from three lists that classified the schools by the variable "Type." This represented 39.8% of the population surveyed.

Six research questions were analyzed. The data comprised two major subscales: a) attitudes and implications of gifted programming, and b) attitudes toward formatting structures of gifted programming.

Analysis of the data suggested that attitudes of teachers and principals were generally positive toward gifted education. When analyzed by the variable "Department," it was found that teachers who taught in the General Studies department and in both departments had a more favorable attitude toward gifted education than Judaic Studies staff. Results for the variable "Type of School" indicated that teachers of co-ed schools had more favorable attitudes than those who taught in all-boy and/or all-girl schools. Significant differences in attitudes were found between teachers who had educational background in gifted education and those who did not. Results also suggested that teacher attitudes were influenced by an existing gifted program within the school but this did not seem to affect the attitudes of principals. Principals reported preferences toward serving gifted students within the framework of the regular classroom. They further reported that specialized training in teaching the gifted was not necessary. Both teachers and principals with ten or more years of experience reported a more positive attitude toward organizing gifted students into instructional units.

In addition, findings indicated that there were differences of opinion among principals and teachers in the three types of schools surveyed and in each of the departments as to the definition of giftedness, the existence of specific programming for the gifted, and perception of administrative support services.

Family Impact on High achieving Chinese-American Students: A Qualitative Analysis

Den-Mo Tsai
Taitung Teacher's College
Taitung, Taiwan

Today, Asian-Americans are often called a "model-minority." Evidence exists that Asian-American students excel in school. Their academic achievement has created considerable attention among educators. The purpose of this study was to investigate family factors that might contribute to the high academic achievement of one group of Asian-Americans, the Chinese-Americans.

Qualitative methodology was used to investigate family factors. Subjects in this study were Chinese-American parents with high-achieving children over the age of 10. Both parents and their highest-achieving child were interviewed. A semi-structured open-ended questionnaire developed by the researcher was sent to parents before the interview was conducted. Thirty-five questionnaires were completed, and ten families with extremely high-achieving children were interviewed. Four of the students are Westinghouse Scholarship winners, and three are Presidential Scholars. All the high achievers are currently attending prestigious universities like Harvard and Yale. The first interview with parents lasted approximately four hours. Follow-up interviews were pursued by phone. The high-achieving students were also interviewed by phone.

Results in this study indicate that the families with high achieving Chinese-American students tend to have parents with stable marriages and close relationships among family members. The family values contributing to high achievement include an emphasis on family cohesion, education, hard work, discipline, and the respect for teachers and elders. Parents also tend to emphasize the importance of mingling with the U.S. mainstream society. Characteristics of successful parenting are:

- Emphasizing consistent attitudes towards education
- Expecting children to perform well based on their ability
- Understanding and challenging children
- Supporting children psychologically and financially
- Providing role models
- Spending time with children beneficially
- Teaching young children naturally
- Reinforcing children's good habits
- Communicating with teachers.

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